

IN THE CLAIMS

The claims are as follows:

Claim 1 (Previously presented): A lubricant composition having good frictional properties, comprising:

a base oil and

at least one additive having friction-modifying properties,

wherein

the additive having friction-modifying properties is a block copolymer comprising:

hydrophobic segments P and

polar segments D,

wherein the hydrophobic segments are obtained by polymerization of monomer compositions which comprises

a) from 0.5 to 40% by weight, based on the weight of the monomer compositions for preparing the hydrophobic segments, of one or more ethylenically unsaturated ester compounds of the formula (I):



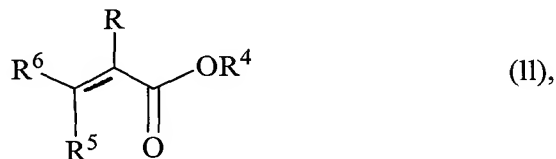
wherein

R is hydrogen or methyl,

R¹ is a linear or branched alkyl radical having from 1 to 5 carbon atoms,

R² and R³ are each independently hydrogen or a group of the formula -COOR' in which R' is hydrogen or an alkyl group having from 1 to 5 carbon atoms,

b) from 50 to 100% by weight, based on the weight of the monomer compositions for preparing the hydrophobic segments, of one or more ethylenically unsaturated ester compounds of the formula (II):



wherein

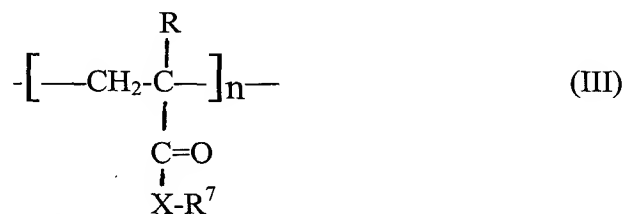
R is hydrogen or methyl,

R⁴ is a linear or branched alkyl radical having from 6 to 30 carbon atoms,

R⁵ and R⁶ are each independently hydrogen or a group of the formula –COOR'' in which R'' is hydrogen or an alkyl group having from 6 to 30 carbon atoms,

c) from 0 to 50% by weight, based on the weight of the monomer compositions for preparing the hydrophobic segments, of comonomers,

and the polar segments are represented by the formula (III):



wherein

R is independently hydrogen or methyl,

R⁷ is independently a group comprising from 2 to 1000 carbon atoms and having at least one heteroatom,

X is independently a sulfur or oxygen atom or a group of the formula NR⁸ in which

R⁸ is independently hydrogen or a group having from 1 to 20 carbon atoms, and

n is an integer greater than or equal to 3, and further

wherein a ratio of the length of the hydrophobic segments to the polar segments of the block copolymer is in the range of from 5:1 to 1:2.

Claim 2 (Previously presented): The lubricant composition as claimed in claim 1, wherein the R^7 radical in formula (III) has at least one group of the formula -OH or -NR⁸R⁸ in which the R⁸ radicals independently represents a hydrogen or a group comprising from 1 to 20 carbon atoms.

Claim 3 (Previously presented): The lubricant composition as claimed in claim 1, wherein the X group in formula (III) is represented by the formula NH.

Claim 4 (Previously presented): The lubricant composition as claimed in claim 1, wherein a numerical ratio of heteroatoms to carbon atoms in the R^7 radical of the formula (III) is in the range from 1:1 to 1:5.

Claim 5 (Previously presented): The lubricant composition as claimed in claim 1, wherein the R^7 radical of the formula (III) comprises at most 10 carbon atoms.

Claim 6 (Previously presented): The lubricant composition as claimed in claim 1, wherein the polar segment D is obtained by polymerization of aminoalkyl (meth)acrylates, aminoalkyl (meth)acrylamides and/or hydroxyalkyl (meth)acrylates.

Claim 7 (Previously presented): The lubricant composition as claimed in claim 6, wherein the polar segment D is obtained by polymerization of a monomer selected from the

group consisting of 2-hydroxyethyl methacrylate, N-(3-dimethylaminopropyl)methacrylamide and a mixture thereof.

Claim 8 (Previously presented): The lubricant composition as claimed in claim 1, wherein the block copolymer is a block copolymer type selected from the group consisting of a diblock, a triblock, a multiblock, a comb and a star copolymer.

Claim 9 (Previously presented): The lubricant composition as claimed in claim 8, wherein the block copolymer is a diblock, triblock or tetrablock copolymer.

Claim 10 (Previously presented): The lubricant composition as claimed in claim 8, wherein the hydrophobic segment P has a weight-average degree of polymerization in the range from 20 to 5000.

Claim 11 (Previously presented): The lubricant composition as claimed in claim 8, wherein the polar segment D has a weight-average degree of polymerization in the range from 10 to 1000.

Claim 12 (Previously presented): The lubricant composition as claimed in claim 1, wherein a weight ratio of the polar segments D to the hydrophobic segments P is in the range from 1:1 to 1:100.

Claim 13 (Previously presented): The lubricant composition as claimed in claim 1, wherein the lubricant composition further comprises at least one selected from the group

consisting of a viscosity index improver, an antioxidant, a corrosion inhibitor, a detergent, a dispersant, a EP additive, a defoamer, a friction modifier and a demulsifier.

Claim 14 (Previously presented): The lubricant composition as claimed in claim 1, wherein the block copolymer comprising the segments P and D is present in an amount of from 0.01 to 100% by weight.

Claim 15 (Previously presented): A process for producing lubricant composition as claimed in claim 1, comprising:

polymerizing monomer compositions in a lubricant oil in the presence of initiators which have a transferable atom group and one or more catalysts which comprise at least one transition metal, in the presence of ligands which can form a coordination compound with the metallic catalyst(s),

separately forming hydrophobic and polar segments by variation of the monomer composition during the polymerization.

Claim 16 (Previously presented): A process for preparing lubricant composition as claimed in claim 1, comprising:

polymerizing monomer compositions in a lubricant oil in the presence of dithiocarboxylic ester,

separately forming hydrophobic and polar segments by variation of the monomer composition during the polymerization.

Claim 17 (Previously presented): A gear oil, motor oil, hydraulic oil or grease comprising a lubricant composition as claimed in claim 1.